



# G.A. Bullet-in

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## EXECUTIVE ORDER NO. 292 INSTITUTING THE "ADMINISTRATIVE CODE OF 1987"

The "GOVERNMENT ARSENAL, DND" shall

- Formulate plans and programs to achieve self-sufficiency in arms, mortars and other weapons and munitions;
- Design, develop, manufacture, procure, stockpile and allocate arms, mortars, and other weapons and munitions without the necessity of obtaining any permits or licenses; and devise ways and means for the efficient mobilization of civilian industry to augment the production of the Arsenal in times of emergency;

(Sgd.) Corazon C. Aquino  
President of the Philippines



Camp General Antonio Luna

"Home of the famous RPA quality ammunition"

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**GA Modernization.. An Accurate Shot to the Future**

# EDITORIAL

## GA Rises to the Challenge of Diversification

As called for in its mandate, the Government Arsenal (GA) must now rise to the challenge of diversification in order to fully live up to the very reason for its existence. As embodied in Chapter 3, Section 26 of Executive Order No. 292, the GA shall:

- Establish, operate and maintain government arsenal;
- Formulate plans and programs to achieve self-sufficiency in arms, mortars and other weapons and munitions;
- Design, develop, manufacture, procure, stockpile and allocate arms, mortars, and other weapons and munitions without the necessity of obtaining any permits or licenses, and devise ways and means for the efficient mobilization of the civilian industry to augment the production of the Arsenal in times of emergency.

The third function cited in the EO provides much latitude and flexibility for GA to engage in other developmental projects, which it is doing in the past years and gained momentum in the couple of years that the incumbent Director assumed administration of GA because of his dynamic style of leadership.

Various improved versions of existing ammunition types and innovations to enhance performance of standard ammunition being manufactured by GA came out and there are those which are ongoing. With the satisfaction and enhanced capability of end-users in mind, possibilities are endless, including those on firearms repair and manufacture, which are already gaining grounds.

Being once an end-user of GA-manufactured ammunition when he was in the active military service, the incumbent Director is in the better position to understand the soldier's need. Truly, he is a transformational leader and a perfect match for GA's pool of technical people. Combined, there is much to look forward to for GA, and it is apt for the challenge.

## *The Camp that is...*

Have you ever wondered why the 370-hectare land presently occupied by the Arsenal was named Camp General Antonio Luna?

By virtue of General Order No. 207 dated 27 February 1978, the site of the Government Arsenal at Lamao, Limay, Bataan was named Camp General Antonio Luna, in honor of the late General Antonio Luna who was appointed Director of War by General Emilio Aguinaldo in June 1898. Said General Order further cites that General Antonio Luna established in strategic points of the country arsenals and military hospitals actively engaged in the quest for freedom. He was known for his scientific approach in the conduct of war. He was also a scientist in his own right, having acquired the degree of Doctor of Pharmacy.

Overlooking the left portion of the Commodore Jacinto L Papa Jr Building (Administrative Building) stands tall the bronze statue of the valiant General, as if always ready to unleash his sword to defend the camp from any invasion, symbolic of what General Antonio Luna's fight for freedom for the country. The statue was sculptured by Fermin Y. Gomez and unveiled on 22 March 1979.

# Director's Corner

*"The first time I came here, I knew the potential of Arsenal is high, and I believe in the technical ability of the people and their dedication to work"*

*Morning Formation, 7 June 2012*

With my over two years of incumbency as Director of GA, I am genuinely appreciative of what its personnel have to offer in terms of dedication to work and technical know-how, paving the way for accomplishment of yearly production targets and realization of various diversification projects.

What I have in mind in terms of innovations and improvement of performance of firearms and ammunition, are initially transformed into prototypes and/or undergo pilot testing and finally go into mass production. These could not be possible without the ingenuity and competence of the engineers and technical people of GA, who can transform my concepts and ideas into reality.

GA-made ammunition per se are worth commending as they are at par with foreign-made. In fact, parallel testing of GA ammunition with US-made ammunition issued in the Balikatan Exercise proved to be more superior in almost all aspects. GA quality control, if I may say, really adheres to quality standards to ensure good performance of the ammunition and safety of the firers.

The recently produced Cal .45 Round Nose and Semi-Wad Cutter Teflon-coated training ammunition proved to be very promising, as this will not only preserve the life span of the barrel, but significant cost reduction can be realized with the elimination of the bullet jacket made out of commercial bronze. The lighter version of the Cal .45 bullet, i.e. 210 grains, on the other hand, will lessen and/or reduce the muzzle recoil of the pistol, which makes the ammunition fit for both combat and practical shooting. The GA had likewise initially tried production of match ammunition using procured match bullets assembled with in-house manufactured cases and primers for use of the AFP snipers.

As I have advocated in the past couple of years, we should be proud of our in-country manufactured ammunition, especially those from the GA. I have that spirit depicted as insignia in our briefing materials and packaging to emphasize the good quality of GA ammunition through the words "Proudly Philippine Made".

# SOLDIER MODERNIZATION ASIA

*The Only Forum in the World for Active Asia Dismounted Soldier Procurement and Development*

The Director, Government Arsenal (GA), MGEN JONATHAN C MARTIR AFP (Ret) was invited as one of the speakers during the Soldier Modernization Asia at Swissotel Merchant Court, Singapore on 13- 15 March 2012.

Soldier Modernization Asia 2012 is the only forum in the region exclusively dedicated to Asian Military procurement professionals operating within the modernization field. The event would enable you to benchmark your solutions against Asia's diverse programme requirements such as Australia's Land 125, South Korea's Future Warrior, and Malaysia's SAKTI programmes as well as showcase your COTS solutions to wide range Asian armies.

The said forum was represented by unparalleled networking opportunities with senior military representatives from Indonesia, Philippines, New Zealand, Thailand, Sri Lanka and Vietnam as well as cultivates vital business opportunities with region prime contractors such as Sapura Thales and Samsung Thales which contributed a lot to make the activity worthwhile.

With the modern innovations in GA and being most experienced and knowledgeable in weapons and ammunition, the Director, GA was invited to talk about the current Arsenal modernization agenda. Several modernization projects of this Bureau were humbly mentioned during the forum such as The (Total) Modernization Program amounting to Php6.300B which is divided into four (4) phases:

- The enhancement of the Arsenal's capacity in the production of small arms ammunition worth Php1.340.B
- The development of the Arsenal's capability on weapons manufacture worth Php2.0B
- The establishment of various munitions testing facilities worth Php500M.
- The development of the Arsenal's capability to manufacture medium and large calibre ammunition worth Php2.462B

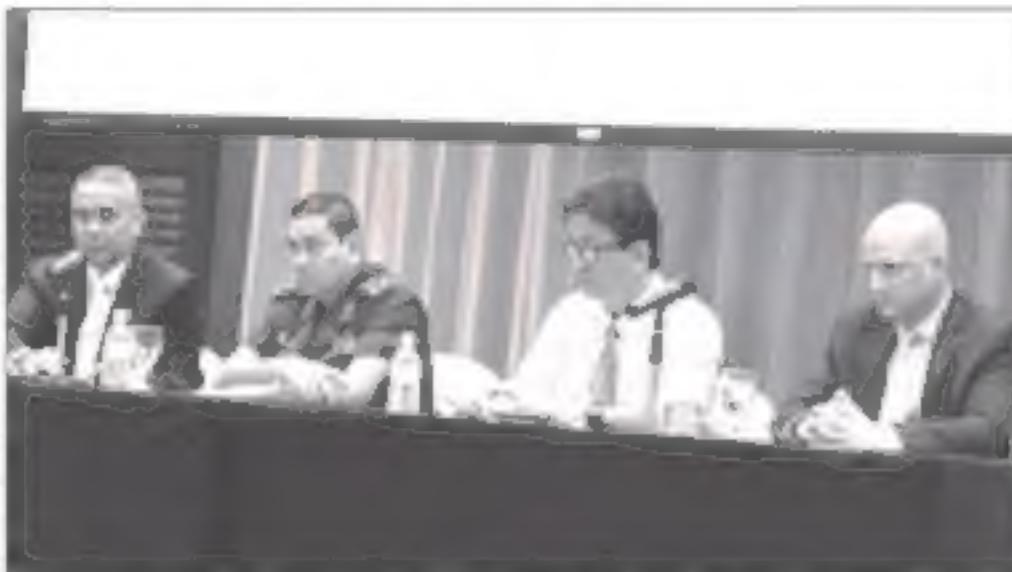
This proposed bill was filed in the House of Representatives by the DND leadership which was subsequently sponsored by Congressman Albert Garcia from the second district of Bataan under the House Bill No. 76.

Likewise, three (3) on-going GA acquisition projects were mentioned by the Director, with funds coming from the AFP Modernization Act Trust Fund:

- The acquisition of case and bullet manufacturing machines and cartridge loading and assembly machines
- The acquisition of 5.56mm multi-station bullet assembly machine
- The acquisition of packing machine with laser marking capability

Meanwhile, in-house development projects include the following:

- Match ammunition/armour piercing ammunition



- Improvements of Arsenal Ammunition Packaging
- Establishment of the Small Arms Repair and Upgrade Division.

Under the Waterbury Farrel Procurement Projects worth \$7.2 million are the (a) acquisition of case and bullet manufacturing machines, and cartridge loading and assembly machines, and (b) acquisition of 5.56mm multi-station bullet assembly machine.

For the packing machine with laser marking capability, the project is now due for re-bidding. This machine is very useful for proper accounting of each cartridge by means of serializing and bar coding to ensure traceability and prevent misappropriation. The Armed Forces of the Philippines (AFP) as the end user can efficiently account and trace the flow of the ammunition to the different units.

The GA is on its way to aggressively pursue the mass production of match ammunition/armour piercing ammunition for the AFP after

the very encouraging results of the tests conducted on the initial products.

The GA's products are NATO military standards and are ascertained to be safe, reliable, and accurate before delivery. To ensure longer storage life in high humidity climate in our country the GA uses vacuum-sealed plastic bags and plastic crates for loose ammunition and metal boxes for linked ammunition. However, this metal box will be changed with a new GA designed plastic crate in our production this year. The GA is the only ammunition manufacturer in the world that adopts vacuum sealing with silica gel insert in the packaging ammunition. This is to ensure three (3) times longer shelf life compared to present international standards in the use of tin and wooden boxes.

This Bureau has established a new division last January 21, 2012 named Small Arms Repair and Upgrade Division for the upgrade of the M-16A1 rifles of the AFP to the M-4 variants. The AFP already turned-in eight thousand (8,000) pieces of M-16A1 rifles to GA for this purpose.

After the presentation of all the speakers, the Director, GA was requested to seat as member of the panel during the open forum to convey their individual opinions and ideas. When asked who leads the modernization/procurement plan in the country, the Director replied that in the Philippines, the military and civilian heads collaborate with each other for any modernization/procurement plan that will be made.

In conclusion, the moderator made a very pleasing commentary on the GA modernization thrusts, and truly recognized the Director's capability for innovations. It is a clear and positive manifestation that the GA is already gaining grounds in what it envisions to achieve in the near future.

*LT MARLY CLORITO MARTIR  
Safety and Security Officer, Quality Assurance Division/  
Communications Officer, GASSO*

# GA TEAM VISITS S & T DAEWOO

Engr Dennis Chua and Mr. Rodel Quindoy of the Government Arsenal (GA) visited S & T Daewoo in Songjeong-ri, Cheolma-myeon, Gijang-gun, Busan, South Korea on 1-3 February 2012 as per invitation, to determine their financial and technical capability to undertake the proposed project on the manufacture of 5.56mm Rifles at GA plant site. The initial proposal in rifle manufacturing investment is PhP1.439 with a depreciation span of 8 years and duration of concession of 5 years for an annual production capacity of 20,000 units.

S & T Daewoo was started in 1973 as Ministry of National Defense Arsenal that granted Colt Licensee to produce M16A1 rifles from 1974 up to 1985, then after which Daewoo Precision Ind. Ltd took over MND and they started designing and manufacturing their own K-series Small Arms Weapon for the Korean Army like the K2Rifle Piston Type, K201Grenade Launcher, USAS Shot Gun and K3 Squad Automatic Weapon (SAW) which are currently being used by our soldiers; K4 40mm Automatic Grenade Launcher (AGL), K5 9mm Pistol, K7 Silenced 9mm SMG, K11 Advanced Individual Weapon( dual barrels for 5.56mm and 20mm airburst) which are currently under



evaluation by the Korean Army; K12 General Purpose Machine Gun equivalent to US M60 MG and the soon to be released the K14 Sniper Rifle, K201Grenade Launcher equivalent to US M203 Grenade Launcher, USAS Shot Gun and the K2 C 5.56mm Carbine equivalent to M4. Following the collapse of Daewoo, the company was spun off in February 2002 and relisted on the Korean Stock Market in March 2002. Majority of its shares were purchased by S&T Holdings in June 2006 and it was renamed to S&T Daewoo Co., Ltd in September 2008.

Sales presented for 2011 was significant, and financial statements shown for the last 3 years (2008-2010) confirm a very viable and capable company to do business with GA. The certificates for ISO 14001:2004 Environmental Management System and ISO 9001: 2008 Quality Management System were also presented.

Their technical capabilities were very much impressive especially in defence, from license built M16A1 rifle. They produce their own standard weapons through experience and technical knowledge gained from Colt, with these

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## THE ADIC WORKSHOP

by Mr. Roger S. Gambar

As a manifestation of the SND's strong support to the establishment of the ASEAN Defense Industry Collaboration (ADIC), the author was one among those sent to Kuala Lumpur, Malaysia on 17-19 April 2012 to attend the ASEAN Defense Industry Collaboration (ADIC) Workshop at the Labuan Room, Level 5 of the Putra World Trade Center in Kuala Lumpur, Malaysia on 18 April 2012. This year's workshop was the 2<sup>nd</sup> in a scheduled series of workshops/conferences aimed to finalize the Terms of Reference (TOR) for the Consultative Group whose final output would be submitted to the ASEAN Defense Senior Officials' Meeting (ADSOM) for approval, prior to its implementation. In essence, the Consultative Group would be performing functions as the Technical Working Group of the ADSOM.

The participants to the workshop, which was facilitated by DATUK DR. ISMAIL BIN HAJI BAKAR, Deputy Secretary General (Policy), Malaysian Defense Ministry and two others, tackled in details the following subjects: a) Terms of Reference (TOR) for Consultative Group, b) Establishment of Permanent Consultative Group, c) Funding, d) Potential Area of cooperation,

e) Possible participation from outside ASEAN.

**Way Forward - 1. Potential Areas of Cooperation –** ASEAN member-countries may submit proposals on possible areas of cooperation that may likewise serve as Confidence Building Measures, such as the Development of Armor Vehicle of Indonesia which could provide for the needs of all armed forces in the region. **2. Possible Participation from outside ASEAN** - it was agreed that outsiders should not be permitted to participate at this early stage of the ADIC primarily because, it is embodied in the Concept Paper that was approved in the ADSOM that no outsiders shall be allowed to participate in the ADIC activities.

**The Putrajaya Forum 2012.** The Workshop participants were made to attend the Putrajaya Forum 2012 whereby ASEC RAYMUND JOSE QUILOP, Assistant Secretary for Strategic Assessment, DND, being one of the speakers, discussed among others, Joint Venture and leveraging partnerships and alliances to eliminate redundancy and competition in the production of basic weapons and ammunition in the region; the

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## GA DEVELOPS ITS OWN SOAP AND DETERGENT

### For In-process Use

The GA utilizes both soap flakes and liquid detergent in the washing of in-process and finished products for the cartridge case and bullet manufacture.

Industrial soap flakes work as lubricating agent and coolant in blanking and cupping, drawing, tapering and necking, and soap lubrication. It is no ordinary soap since there are specific quality requirements to comply with when used in afore-said operations. Many brands that are readily available in the local market had been tried in the process but failed to meet the quality requirements.

One supplier was able to develop the kind of soap that GA needs, however, there is tendency for price monopoly if there is only one supplier. Because of this possible dilemma, in-house development of industrial soap flakes was conceived, not only to cut down on cost, but to address the problem on long procurement process and ensure readiness of supply at all times.

Experimental production was conducted using five (5) different formulations, where one formulation passed at 1% concentration as compared to the existing industrial soap of 4% concentration. Final formulation of the developed soap was used in pilot and mass production, and Technical Bulletin was

published. The in-house manufacture and utilization of the said industrial soap will commence once materials are completed for continuous production.

On the other hand, Case and Bullet Division also utilizes liquid detergents and two (2) brands readily available in the market are being used, i.e. for the initial washing of components and for the final washing to attain a more superior quality intended for the finished product.

It is on this premise that Engineering Division formulated a liquid detergent for use both in the in-process and final washing of components, with the objective also of generating savings for the GA.

With reference to various formulas sourced from the internet, and getting the best features suitable to the GA's requirement, series of experiments were done which yielded results appropriate and comparable to the quality of products using the existing liquid detergent. Final formulation comprising of detergent chemicals was utilized in pilot and mass production, and the corresponding Technical Bulletin was published afterwards and said liquid detergent is now being used in the production process. (Engr Kathleen Donnah P. Reotutar)

## ELECTRIC HEATING SYSTEM IN CASE AND BULLET MANUFACTURE

The GA, in its intention to improve its manufacturing operations and capabilities submitted three (3) projects for inclusion in the Philippine Defense

Reform-funded projects by virtue of Department Order No. 167 dated October 28, 2009 regarding the Establishment of the PDR Project for the Improvement of the GA designating the Project Sponsor, Project Manager and the Project Team Members.

One of these three (3) projects was the Development of Heating System from Steam to Electric in Case and Bullet Manufacture. The Project Management Team designated to carry out the tasks for this project was composed of the following GA Executives and personnel:

Component Project Manager- Engr Jose C Bobadilla	
Action Officer	- Engr Jeaneth N Espinosa
Accountant	- Ms Cleotilde R Quezon
Procurement Officer	- Ms Rowenna G Basa
Members	- Engr Victorino D Mones Mr Florencio R Cruz

The goal was to develop, establish and integrate in GA's ammunition manufacturing operations an electric heating system that is more economical and easier to maintain and would ensure effective and uninterrupted supply of heat while promoting energy conservation, as replacement to the steam boiler.

Problems and Disadvantages on the Use of the Steam

Boiler. The steam boiler had been in operation for more than three (3) decades, thus, had greatly deteriorated in efficiency and encountered frequent breakdown due to overheating resulting to bulging of surfaces, and cracking of the fire bricks / refractory. Further, the boiler had to run in its full capacity even if only the case and bullet manufacture were using it, hence, much energy was lost/wasted during low production, causing more expensive operations and maintenance.

**Benefits of the Electric Heating System Project.** The use of the electric heating system is economical, easier to operate and requires minimal maintenance, with expected monthly savings of not less than PhP382,686.00 compared to the old system. It can effectively and efficiently support the heating requirements in case and bullet manufacture with the continuous and stable supply of the required heat in the various stages of operations, particularly those that use chemical solutions in the pickling and washing / tumbling of the case and bullet components. Energy conservation will be realized as heat losses will significantly be reduced since only the heating system in a particular stage of operation will be running to provide heat locally as needed, unlike in the steam boiler where the whole system is activated even if only one (1) stage of the operations is in need of heat supply. Moreover, if one heater installed in any of the solution tanks breaks down, other heaters will not be

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**GA TEAM VISITS S & T DAEWOO**

endeavour the Korean Armed Forces have acquired their own standard weapon and is the only company of small calibre firearms in Korea for 30 years.

The team visited the rifle manufacturing plant with has area of 20,592 square meters. The machines being used for various parts manufacture consist of old and new units. The new machines were all Computerized Numerical Control (CNC) made by S&T Dynamics (a sister company of Daewoo), a group that specializes in machine tools for defence. The old ones were remnants of Colt manufacturing line. Some machines were converted to produce parts for the K-series weapons, because most of the parts of K-series have similarities with those parts of M16. Up to now they are still producing parts for M16 for the Korean Army's inventory of M16's and M60 machine guns.

Test firing at the Military Camp Firing Range in Tongdosa which is wide and long enough to shoot at more than 600 yards was quite an experience, especially for the conduct of Accuracy and Penetration Tests of their K2C 5.56mm Carbine which they intend to offer for the joint project with GA. Weapons brought for firing were the K2 5.56mm Rifle, K3 5.56mm SAW, DP 51 9mm Pistol and K7 9mm Silenced Sub Machine Gun. K2C was equipped with Leopold Optic Sight, the distance of target placed at 600 yards and the size of target 3 feet wide and 6 feet high made of steel sheet with 2mm thick. During the course of firing, the felt recoil and the accuracy were impressive.

With further discussions, especially on the business aspect and some legal issues, and details of the project that have to be submitted by the different proponents, the GA looks forward to the materialization of this project. S&T Daewo is one of 5 foreign manufacturers undergoing evaluation for a Joint Venture Undertaking in the in-house manufacture of the AFP Standard Rifle.

(Continued from page 5) **ELECTRIC HEATING SYSTEM IN CASE...**  
affected, thus, minimizing operation downtime. The new system is likewise more environmental friendly, since emission of fumes from the burning bunker fuel can be eliminated, thus, helps mitigate the problems contributing to climate change. The new system will also mean savings in manpower as the six (6) boiler operators manning the old system can be utilized in other operations where there is lack of personnel.

After the successful execution of the above-stated major activities by the PMT, the project was finally completed in December 2011 and is now in full implementation. The approved budget for this project was PhP4,751,578.30, however, the actual project cost amounted to only PhP 3,256,666.55, with savings of PhP1,494,911.75 which can be requested to fund other projects. (Engr Jeaneth N. Espinosa)

**APP UNITS CONDUCT MARKSMANSHIP TRAINING AT GA CAMP**

Pursuant to the Secretary of National Defense's directive, AFP units are entitled to undergo marksmanship training in the Government Arsenal (GA) Firing Range using its available training ammunition. Since October 2010 up to present, about fifty-seven [57] groups from different AFP units have already visited GA and conducted firing.

So far, the training ammunition fired by various AFP units from October 1, 2010 up to May 31, 2012 had a total of 719,107 rds which is equivalent to Php 19.1 M savings to the AFP. The breakdown is as follows:

UNIT	QUANTITY		
	2010	2011	As of MAY 2012
Philippine Army	13,000 rds	59,053 rds	63,470 rds
Philippine Air Force	-	72,542 rds	46,460 rds
Philippine Navy	51,174 rds	113,082 rds	48,973 rds
Philippine Marines	126,367 rds	341,478 rds	5,000 rds
GHQ-HSC	28,980 rds	84,006 rds	7,000 rds
<b>TOTAL</b>	<b>219,521 rds</b>	<b>328,683 rds</b>	<b>170,903 rds</b>



This 2<sup>nd</sup> quarter 2012, almost 4.5 million rds of fired cases from assorted types of caliber were turned-over by the AFP to GA for rework and assembly into training ammunition.

As gesture of goodwill, the enlisted personnel of the Philippine Marine Corp (PMC) and Philippine Air Force (PAF) helped in the packing operation at the Cartridge Assembly & Packaging Division during their break period.

Besides developing an appreciation on how the ammunition are being packed, their voluntary assistance was a great help to GA to expedite the packing of ammunition.

Meanwhile, the back-to-basic training of GHQ HSC which was started last year, is an on-going activity inside the camp. More record firing is scheduled up to end of this year.

(Susan Narciso)

## Featured Personnel

### LT MARLY LLORITO-MARTIR PN SAFETY-SECURITY OFFICER, QUALITY ASSURANCE DIVISION



A new addition to the AFP personnel assigned in the GA is a female naval officer – LT MARLY LLORITO-MARTIR PN. Before her assignment at GA in October 2011, she was assigned in the Naval Communications Electronics-Information Systems Center (NCEISC) in Sangley, Cavite City. Lt Llorito-Martir was born and raised in Jagnaya, Jamindan, Capiz and comes from a family of dedicated teachers and principals. Upon graduation from John B Lacson Colleges Foundation in Iloilo City with a degree of BS in Customs Administration in 1997 and after working in Manila for 3 years, she decided to join the Philippine Navy and underwent training as a Probationary Ensign. She graduated 2<sup>nd</sup> in her class and before long, found herself assigned at the Philippine Fleet sailing the seas aboard various naval vessels for 2 years.

One will most likely describe her as a well-educated petite morena beauty, and charming at first glance. But don't let this fool you for "*LOOKS CAN BE DECEIVING*". Marly, as she is fondly called by her peers, has the military skills many women could only dream of. Marly graduated top of her class in the Marine Corps Ammunition Management Course in 2008. She was also the first female sailor to earn the Explosive Ordnance Demolition (EOD) Badge from the Philippine Army TRADOC, Cp O'Donnell, Tarlac in 2009 graduating 4<sup>th</sup> in her class. This makes her, in military parlance, a "Master Blaster", capable of defusing a bomb or blowing up structures. But of all activities, what Marly truly enjoys is joining shooting competitions, where she had earned her greatest laurels. An avid pistol shooting enthusiast, she earned her first gold medal as National Champion in the Camp Perry events in the Philippine National Shooting Association (PNSA) in 2004. Since then, her shooting competence brought her to other places and more fame as she garnered a silver medal in the 2005 PPC event of the SEA Games held in Manila, silver medals in the Singapore Open Shooting Competitions in 2006 and 2007, National Ladies Champion PPC event of PNSA from 2006 to 2010, Ladies Pistol Champion AFP Squad Challenge Competitions 2010 and lastly, Overall Champion of the AFP Pistol event of the AFP Squad Challenge 2011 for both male and female category.

With such recognitions, others may wonder who could ever win her heart, with her abilities surpassing most what other men can do. Those people close to her have the most beautiful story to tell. She finally exchanged vows last May 6, 2012 in Manila Peninsula Hotel to her long time coach, who discovered her potential, believed in her and took time to hone her skills to achieve such winnings; and later on, patiently took the challenge also of winning her tough heart. Lt Marly Llorito-Martir PN is now married to the incumbent Director, GA - the distinguished Marine Corps competitive shooter Major General Jonathan C Martir AFP (Ret).

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**THE ADIC WORKSHOP**  
efforts towards the establishment of SRDP corporation under DND; the need for information sharing as a way of confidence building measure as well as regional collaboration as it would not only enhance economy but it would also improve the defense of the whole region and the attainment of common objectives. On the other hand, MGEN ESPINO AFP, DCS for Intelligence, J2, discussed the AFP's transformation program with title: Future Trend and Challenges. He called on the AFP to be responsive to the need of the times, especially on the aspects of natural calamities and terroristic activities whereby more collaborative efforts among the various stakeholders are needed. He also pointed out the need for the AFP to be ready to perform non-traditional security missions as maybe necessary.

**13<sup>th</sup> Defense Services Asia Exhibition.** The author had the chance to visit the 13<sup>th</sup> Defense Services Asia Exhibition with exhibits from the various defense manufacturers across the globe. It was an opportunity for the author to meet defense manufacturers and invited them to visit the GA for possible Joint Venture (JV) undertaking. (Along that line, the representative from Sig Sauer was the first to signify intent for JV agreement with GA, as he already came and discussed with the Director, GA some prospects and parameters. The Chief Executive Officer of the Malaysian Defense and Security Technology Park likewise indicated their willingness to enter into positive development projects in the country through the GA.)

Finally, the author is of the opinion that ADIC is indeed a good avenue whereby the GA could interact with the various defense manufacturers in the region and in the process get more insights on the developments that may serve as basis in plotting the roadmap leading towards the GA's dreamed modernization.

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# GA THRUSTS TOWARDS CAPABILITY UPGRADE...

